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DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
**DIVISION OF ENVIRONMENTAL PROTECTION**

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**MEMORANDUM**

**DATE:** January 31, 2003

**TO:** National Governors Association, Federal Facilities Task Force & Other Interested Parties

**FROM:** Paul Liebendorfer & John Walker, State of Nevada, Division of Environmental Protection

**SUBJECT:** State of Nevada's Comments on the U.S. Department of Energy's [Draft Policy](#) and [Guidance](#) on Cleanup Driven by Risk Based End States

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We have completed our review of the above referenced U.S. Department of Energy (DOE) draft policy document and accompanying guidance titled "*Cleanup Driven by Risk Based End States*."

**General Comments:**

Overall, the draft policy falls short in the effort to institutionalize a "Long-term Stewardship (LTS)" initiative at DOE facilities throughout the nuclear weapons complex. Incorporating LTS activities at contaminated sites is critical for defining "*risk based end states*." Problems associated with the ongoing management and dissemination of information about chemical and radioactive contamination throughout the complex cannot be understated. Hence, LTS principals must be addressed in the draft policy statement. The policy should require execution of Long-term Stewardship practices such as land use controls, monitoring and information management, at distinct and/or contiguous contaminated sites. Without such enforceable requirements, there will be little confidence in the acceptability of established "*risk based end states*."

The reality is that DOE will leave significant volumes of radioactive and chemical wastes in soils and groundwater at many sites across the country. Moreover, by volume, most of this contamination will be left in un-engineered facilities and will pose potential threats to human health and the environment in perpetuity. This situation will be particularly acute for those

DOE's sites that are heavily contaminated, are waste importers, and/or are "closing in place" areas where significant soil and groundwater contamination exist. While we recognize that DOE has experienced only limited success at institutionalizing a program to address control of contaminated sites in perpetuity, it is imperative that DOE continues with a Long-term Stewardship effort, albeit focused somewhat narrowly on achieving "*risk based end states*."

#### **Draft Policy Document:**

The draft policy document should be revised to avoid the term "interim milestones" and/or references about the alleged in-effectiveness of regulatory agreements in the DOE Environmental Management (EM) program. The use of these terms -- at least in the context presented -- incorrectly implies that the federal/state regulatory process governing characterization, remediation and/or cleanup of DOE contaminated sites has obstructed the clean up efforts. DOE is well aware that it is generally not the case; in fact such claims cannot be substantiated in any comprehensive way. The fact remains that without these regulatory agreements as "legal drivers," there would be little characterization and/or remediation achieved anywhere in the nuclear weapons complex.

We recommend that the "Purpose and Scope" and the "Background" section of the draft policy be re-written. The focus of these sections should be to acknowledge the current scope of contamination in the weapons complex and to emphasize that "closure in place" of long-lived radionuclides is the reality, in light of limited resources and/or practical approaches to cost effective cleanups. The policy should further note that developing "*risk base end states*" can only be established with a clear understanding of the accompanying components of Long-term Stewardship, such as site monitoring, institutional controls and information management. And these LTS components must be implemented at the site level and across organizational lines of authority throughout DOE. (e.g. Nuclear Energy, National Nuclear Security Administration, Science, etc.).

The draft policy also assumes that cleanup goals can be definitively articulated and will result in environmental protectiveness; we believe this may not be achievable at many sites. The draft policy assumes that environmental protectiveness can be defined -- yet in some areas, such as deep contaminated groundwater -- the uncertainties of defining a "*risk-based end states*" may in fact not be achievable for some time to come. In these and other circumstances, the policy must acknowledge that existing federal/state agreements will continued to define remedial actions, through built-in flexibility that is responsive to newly acquired information and/or is dependent on future solutions through advanced technologies.

#### **Specific Comments -- The Nevada Test Site:**

We must take this opportunity to relay our concerns about DOE's pursuit of a "*risk-based end states*" program at the Nevada Test Site (NTS). As stated above, and for the clean up program to be successful, DOE's must institutionalize a process that implements the components of Long-term Stewardship at contaminated sites. The referenced policy and guidance must also be revised to insure that "program integration" is in place to address the transfer of responsibility to weapon complex sites that are not under EM's direct control.

At the NTS, for example, the National Nuclear Security Administration (NNSA) is the site “landlord.” (NNSA is the “owner/manager” of most NTS assets including the associated legal responsibility for maintaining land-use controls on the NTS, which is withdrawn public lands [i.e., [800,000 plus acres](#)]). Given this situation, establishing a “*risk-based end states*” program at the NTS will require concurrence/implementation from NNSA. While this may seem doable, there are “land-use management” complications that must be addressed prior to establishing a workable “*risk-based end states*” effort at the site.

As way of background, in the early 1990’s the State of Nevada prevailed in a legal dispute with DOE/NTS Defense Programs (now NNSA) over the preparation of a required NTS Site-Wide Environmental Impact Statement (EIS). The State pursued the development of the EIS, given defense mission changes at the site, following the moratorium on nuclear testing. In a spirit of cooperation, DOE prepared the EIS along with a process to develop a “[Resource Management Plan](#)” (RMP) to guide future site-use development activities. Needless to say, the RMP process has fallen by the wayside.

It is worth mentioning that beyond EM cleanup and waste management operations, NTS is used for a variety of defense and non-defense testing, research and training activities; examples include sub-critical hydro-nuclear testing, nuclear experiments, counter terrorism training, and defense special forces training. The NTS is also “home” to DOE’s Office of Civilian Radioactive Waste Management program, (i.e., the Yucca Mountain program).

Accordingly, defining/implementing a “*risk-based end states*” program for managing unprecedented groundwater contamination, hundreds of contaminated industrial sites, and vast areas of radiologically contaminated soils at the NTS, will be an unparalleled institutional challenges for DOE. Unsurprisingly, the State of Nevada’s policy response is to suggest that DOE implement a comprehensive land-use management program that both establishes and/or redefines “land use areas” on the NTS based on the referenced RMP process mentioned above. Such action, however, will necessitate NNSA support and leadership.

Based on the above comments, we feel that DOE officials in Nevada would not be able to clearly define “*risk based end states*” for most contaminated sites on the NTS. We believe that DOE must acknowledge this fact in a re-draft of the referenced policy and guidance document. Moreover, we believe DOE officials at other facilities will face similar problems in making decisions to establish “*risk base sites ends states*” for contaminated sites. The failure to make such determination is most likely linked to DOE inability to define future use of facilities and properties at many locations throughout the nuclear weapons complex.

cc: Allen Biaggi, Administrator – NDEP  
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